

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P838374

Luminaire Tested: HCSQ615D010-HM60525827-61SQC

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838374  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ615D010-HM60525827-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: -

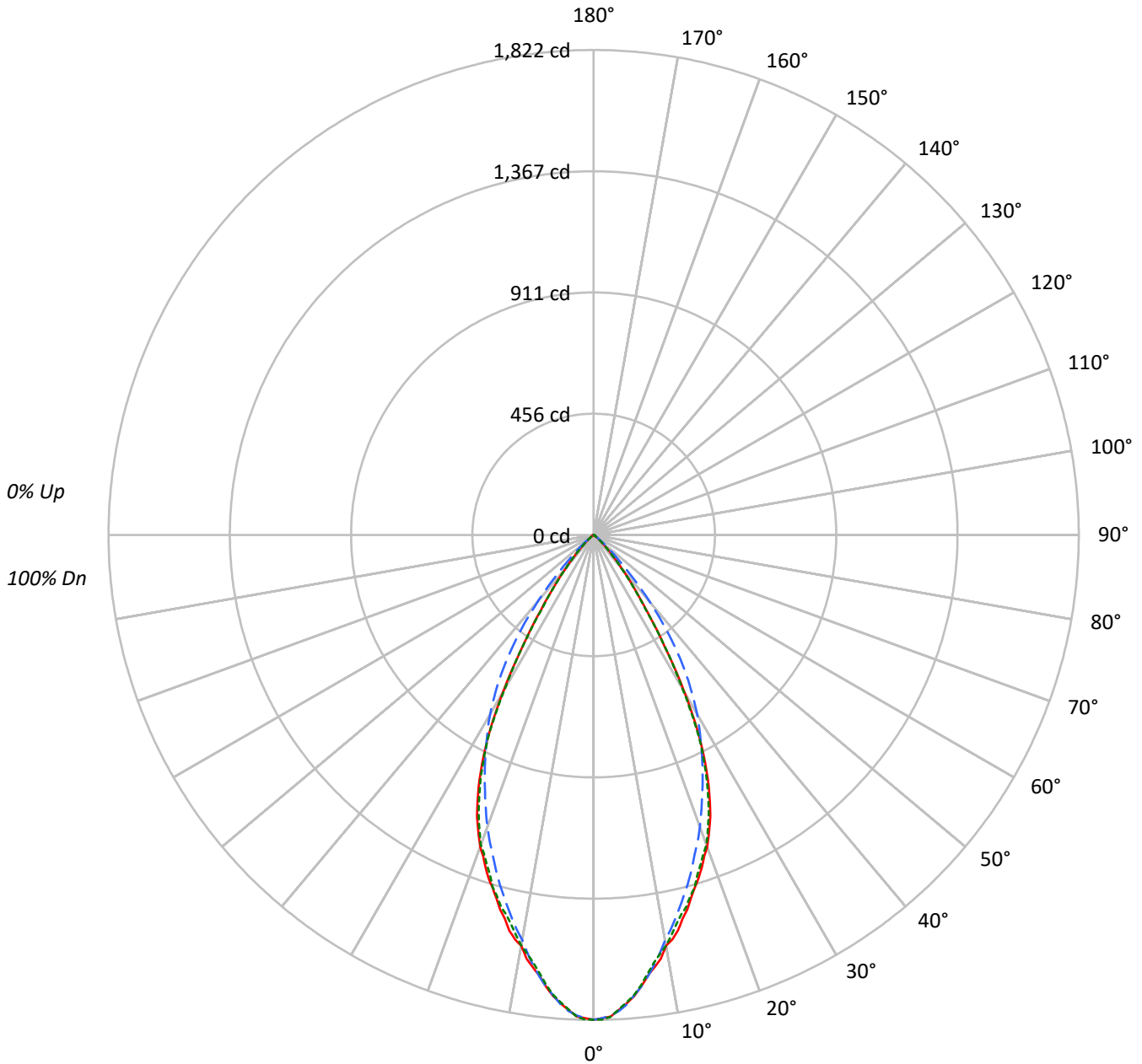
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1364.3 lumens  
Efficiency: N/A  
Efficacy: 97.5 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	78426	78426	78426
5°	75229	75095	74991
10°	68518	67587	68465
15°	62970	60661	62587
20°	57145	53466	56756
25°	48295	45953	47630
30°	33817	38684	33240
35°	18165	29676	17813
40°	8993	18362	8925
45°	3927	7745	3854
50°	1266	2813	1266
55°	638	916	593
60°	422	422	422
65°	306	306	306
70°	227	227	227
75°	200	200	200
80°	149	149	149
85°	296	296	296

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 7745 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.0	11.7
10°-20°	386.2	28.3
20°-30°	446.2	32.7
30°-40°	278.6	20.4
40°-50°	77.4	5.7
50°-60°	10.8	0.8
60°-70°	3.2	0.2
70°-80°	1.3	0.1
80°-90°	0.6	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	992.4	72.7
0°-40°	1271.0	93.2
0°-60°	1359.2	99.6
0°-90°	1364.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1364.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1822	1822	1822	1822	1822	
5°	1741	1736	1738	1735	1735	160
15°	1413	1386	1361	1382	1404	396
25°	1017	987	967	986	1003	454
35°	346	426	565	422	339	230
45°	64	82	127	82	63	56
55°	8	8	12	8	8	8
65°	3	3	3	3	3	3
75°	1	1	1	1	1	1
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1821.5	1821.5	1821.5	1821.5	1821.5
1°	1816.0	1816.0	1816.0	1820.9	1820.9
2°	1810.5	1809.3	1806.3	1809.9	1811.8
3°	1788.0	1790.5	1791.7	1789.9	1785.6
4°	1764.9	1762.5	1769.2	1764.9	1761.3
5°	1740.6	1735.7	1737.5	1735.1	1735.1
6°	1706.5	1712.6	1707.7	1703.5	1701.0
7°	1669.4	1674.3	1671.2	1665.1	1660.9
8°	1640.2	1637.2	1632.3	1631.1	1623.8
9°	1612.2	1601.3	1590.3	1592.1	1594.0
10°	1567.2	1568.4	1545.9	1562.9	1566.0
11°	1548.3	1541.6	1511.8	1525.8	1530.7
12°	1521.0	1499.7	1474.1	1485.7	1494.8
13°	1481.4	1459.5	1436.4	1454.0	1463.2
14°	1451.6	1426.7	1397.4	1420.0	1438.8
15°	1412.7	1385.9	1360.9	1382.2	1404.1
16°	1378.6	1347.6	1322.6	1343.3	1376.2
17°	1348.8	1310.5	1280.0	1301.9	1333.6
18°	1314.1	1269.7	1241.7	1264.8	1300.7
19°	1275.8	1230.8	1205.8	1224.7	1266.0
20°	1247.2	1196.7	1166.9	1185.1	1238.7
22.5°	1145.0	1092.0	1064.7	1086.6	1129.2
25°	1016.6	986.8	967.3	986.2	1002.6
27.5°	864.5	864.5	871.2	863.3	858.4
30°	680.2	729.4	778.1	727.0	668.6
32.5°	496.4	575.5	673.5	585.9	495.8
35°	345.6	426.5	564.6	421.6	338.9
37.5°	240.3	293.8	445.3	296.9	237.3
40°	160.0	197.1	326.7	200.8	158.8
42.5°	104.6	130.2	211.1	130.8	102.2
45°	64.5	82.1	127.2	81.5	63.3
47.5°	37.7	48.7	74.2	49.3	37.1
50°	18.9	28.6	42.0	28.0	18.9
52.5°	11.0	15.2	23.1	14.6	11.0
55°	8.5	8.5	12.2	8.5	7.9
57.5°	6.7	6.7	6.7	6.7	6.1
60°	4.9	5.5	4.9	4.9	4.9
62.5°	4.3	4.3	3.7	4.3	3.7
65°	3.0	3.0	3.0	3.0	3.0
67.5°	2.4	2.4	2.4	2.4	2.4
70°	1.8	1.8	1.8	1.8	1.8
72.5°	1.2	1.8	1.2	1.8	1.8
75°	1.2	1.2	1.2	1.2	1.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.6	0.6
87.5°	0.6	0.6	0.6	0.6	0.6
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





— 0°-180°    - - 45°-225°    - - - - 90°-270°

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77.5°	1.2	1.2	1.2	1.2	0.6
80°	0.6	0.6	0.6	0.6	0.6

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Scaled Data Report



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